## OBLITERATION OF THE STOMACH AS A RESULT OF GASTRIC ULCER—DUODENOSTOMY.

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P. R., male, age 40, was quite well and normal up to June 15, 1901, when he had a severe pain in stomach immediately after swallowing food, which persisted until the stomach was emptied by vomiting. From that time on he had constant pain in stomach whether the organ was empty or full. There was constant vomiting. There was no blood in vomitus or stools at any time. In the summer of 1903 he entered St. Edwards' Hospital, New Albany, and came under the care of Dr. Charles P. Cook. At that time there was manifest pyloric obstruction, the stomach outlines and washings showing marked dilatation. No tumor could be palpated. The stomach was washed out daily for two weeks, preparatory to a proposed operation of gastro-enterostomy, the patient gaining 15 pounds in this time. The patient felt so much improved that he left the hospital, refusing operation.

He was again seen in August, 1905. At this time, on making efforts to wash out the stomach, it was found that the tube could not be made to enter the stomach. The patient began to have great difficulty in swallowing food. He first gave up solids and semi-solids, and was finally reduced to only a teaspoonful of liquid at a time. Vomiting of ingested matter and mueus was continuous.

He finally came to operation on November 27, 1905. For four weeks before this time he had retained practically nothing at all by stomach.

The abdomen was opened in the mid-line, between ensiform and umbilieus. The stomach was exceedingly difficult of identification. A mass, the size of a medium-sized oyster shell, was detected buried in adhesions and occupying the site where the stomach should be. This was finally identified as the stomach by passing the stomach tube by mouth, with the mass between the fingers. The tube could be felt to enter its center, its intro-

duction being attended by the discharge of about a tablespoonful of evil-smelling liquid. The cavity of the stomach seemed to grasp the tube with some firmness. The mass representing the stomach was hard and smooth rather than nodular, and, as already stated, was buried in adhesions.

The alternatives of attempting a gastreetomy in the face of the adhesions, or making an enterostomy, presented themselves. The latter was determined upon. A small slit was made in the descending portion of the duodenum, large enough to admit a small-sized stomach tube. The tube was then inserted and buried in the wall of the duodenum for about two inches; the parietal peritoneum was sutured to the intestine along this same line. The incision was closed up to the tube, which came through the incision at about its middle, being essentially the method employed by Witzel in making a gastrostomy.

The patient immediately received milk and broth through a funnel attached to the tube.

In the ten months since operation his weight was increased from 90 pounds to 130. His normal weight was 145 pounds. He eats everything, including meats, cabbage and sauerkraut. The food is taken into the mouth, chewed thoroughly until finely divided; a little coffee, tea or other liquid is then taken into the mouth, and then the whole mouth contents is directed into a funnel connected to a tube previously passed about six inches into the artificial mouth.

At first, immediately after the operation, an occasional slight diarrhoa occurred. For many months digestion and bowel function have apparently been uneventful.

There is practically no leakage from the fistula. The patient keeps a rag stopper in the opening between feedings, in order to keep the opening dilated. Otherwise, there is pain on introducing the tube. About six meals are taken daily.

For a time after operation when hunger was felt patient would oeeasionally try to swallow food. There would immediately be a sense of fulness and distention, evidently of the lower end of the esophagus, and thereupon the ingested matter would be ejected. These efforts have long since been given up entirely. Every evening the gullet is washed out by taking a swallow of

water: this is immediately ejected, bringing with it a small quantity of mucus.

The condition presented in this case eonstituted a practical obliteration of the stomach. I think there can be no doubt that the process was one of chronic ulceration, with gradual contraction and so obliteration, attended by the formation of extensive adhesions around the stomach.

In making an enterostomy under such eircumstances it is manifest that the higher up, the closer to the pylorus, the opening can be made, the better. In this case the cutting out of the stomach seems to have had no appreciable effect on the process of digestion.

In the early days of feeding, before the patient took the food into the mouth before injecting it through the tube into the duodenum, diarrhæa resulted. Since the food has been first taken into the mouth the bowel movements have been always soft and otherwise natural.

With the exception of this man's social disability, his necessity of isolating himself at feeding time, and the further necessity of more frequent feedings, he is comparatively as well off as if he had a pervious stomach. He states that the feeling of hunger is immediately relieved on receiving an injection of food.

The patient's future has been given careful consideration. Sufficient proof has been offered to cause an apprehension of eancer growth on every uleer base, and this is certainly a possibility worthy of consideration in this man's ease. As no food will eome in contact with and continually pass over the sites of old ulceration, it seems reasonable to assume that the danger of ultimate cancer growth would be less in this case rather than greater.

Further operation in this ease, gastreetomy with anastomosis of jejunum with œsophagus, would be extremely difficult and hazardous, owing to the stomach remnant being buried in such extensive and dense adhesions. It would probably be possible of performance. In such event

it would unquestionably be best to cut the jejunum square across, anastomosing the distal portion with the œsophagus, and implanting the proximal end in the side of the coil anastomosed with the œsophagus. The present artificial mouth could be then used advantageously for a time, and could be ultimately closed.

The patient's general condition is so good, and the outcome of such possible surgery so uncertain, that I have advised him, for the present at least, to bear the ills he ha rather than risk others he knows not of.

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